Number 113, May 1997

Iran as a Military Threat

by W. Seth Carus

Conclusions

- Iran lacks the resources to acquire a modern military capable of competing with the United States. The bulk of Iranian investments have been made in ballistic missiles and naval forces.
- Iran's **ballistic missile** capabilities provide it with a force of considerable strategic value. It can target cities throughout the Gulf, which could intimidate the Gulf Cooperation Council (GCC) countries, especially if the missiles were armed with biological or chemical warheads.
 - By its geographic position, Iran casts a looming shadow over everything that happens in the Persian Gulf, through whose waters move one-sixth of the world's oil. Iran's **naval forces** are likely to soon have 20 missile patrol boats and three Russian-supplied submarines, as well as modern mines (bottom mines using influence fuses appropriate for shallow Gulf waters and rocket-propelled mines suitable for the deep waters of the Strait of Hormuz).
- The United States currently has **sufficient military forces** in the region to counter virtually any move taken by the Iranians. However, the United States should expect to take losses should a conflict develop with Iran.
- There is considerable **support in the GCC** for the U.S. military presence as a vital deterrent to either Iraqi or Iranian aggression. If the United States is to sustain the political cooperation needed to sustain support for its military forces, Washington needs to consult actively with the GCC countries.
- The **potential threat** posed by Iran is a concern for many in the U.S. defense establishment. Its Islamic republic is viewed as a "rogue" regime that is fundamentally hostile to the interests of the United States and its allies. The question, however, is not what are Iran's intentions, but what are its capabilities.
- Iran's conventional weakness may increase its reliance on unconventional weapons, including its chemical and biological weapons.

Targeted Arms Build-Up

Much has been written recently about Iran's efforts to enhance its conventional military capabilities through the acquisition of new armaments. The problem for Iran is that it lacks the resources to acquire a

modern military capable of competing with others in the region, much less with the United States.

According to the December 1994 World-Wide Conventional Arms Trade (1994-2000): A Forecast and Analysis from the Office of the Secretary of Defense, Iran will acquire \$7.7 billion in weapons during the period 1994-2000 (about \$1.1 billion per year). This will include "fighter aircraft, Scud missiles, attack boats, submarines, surface-to-air missiles, ship-to-ship missiles, tanks and armored personnel carriers." By comparison, Saudi Arabia is expected to acquire \$32.4 billion in weapons, Kuwait and the UAE together a total of \$13 billion. Indeed, the UAE alone is expected to buy more than Iran.

In fact, even these relatively modest levels of arms purchases have not been attained. Early indications are that Iran has spent considerably less than \$1 billion a year on arms purchases during the past few years. Rather than spending \$2 billion annually, as the Iranians intended in the late 1980s, Iranian arms imports have declined to no more than \$500 million to \$800 million per year.

As a result, Iran has focused its acquisitions on a few selected areas. Iran has acquired some new combat aircraft, including Russian Su-24 strike aircraft and MIG-29 fighters and some Chinese F-7 fighters. Despite these purchases, however, Iran still has no more than 175 operational combat aircraft. In addition, it has added air defense equipment, including Chinese versions of the venerable SA-2 missile, as well as Russian SA-5 and SA-6 missile batteries.

Improved Ballistic Missile Capabilities

Iran has worked hard to enhance its ballistic missile capabilities. During the Iran-Iraq War, Iran acquired its first ballistic missiles, Scud Bs from Libya and North Korea. Since the war, it has added two new types of missiles: a longer range North Korean version of the Scud B known as the Scud C, and the CSS-8, a Chinese surface-to-surface version of the Soviet SA-2 surface-to-air missile.

As of early 1997, Iran is reported to possess 35 missile launchers (about 10 for the Scuds and 25 for the CSS-8) and over 400 missiles (roughly half Scuds and half CSS-8s). These missiles enable Iran to attack targets within 500 kilometers. Significantly, Iran is also attempting to acquire missiles with longer ranges. The Iranians discussed possible purchase of the North Korean No Dong missile, which could have a range of 1,300 kilometers. For reasons that are not totally clear, it appears that this acquisition has been placed on hold.

Whatever the case, Iran also has invested heavily in the infrastructure to support an indigenous ballistic missile development program. These facilities have been used to produce versions of the Scud, apparently from kits provided by North Korea. In addition, the Iranians hope to eventually supplement their Chinese and North Korean missiles with Iranian types. Since at least 1987, the Iranians have generated plans for the design and production of their own ballistic missile systems. They have made only limited progress in these efforts for reasons that are not clear. According to published reports, Iran has acquired missile technology from China, and it is attempting to obtain SS-4 missile technology from Russia. Such assistance could speed Iran's effort to build its own medium-range ballistic missiles.

Iran also appears to be taking steps to enhance its ability to operate these missiles in the Gulf. According to press reports, Iran is building underground missile storage sites along its southwestern coast. These sites could provide Iran with protected bases from which to deploy its ballistic missiles. Given Iranian concerns about U.S. air power, it makes sense for them to develop a secure infrastructure from which to operate high value assets.

Iran's ballistic missile capabilities provide it with a force of considerable strategic value. It can target cities throughout the Gulf, including all of Bahrain, Kuwait, UAE, and Qatar, and the Gulf coast of Saudi Arabia. The northern part of Oman also is exposed. This opens the possibility of use of missiles for intimidation of the GCC countries, especially if the missiles are armed with biological or chemical warheads.

Table 1: Iranian Ballistic Missiles, 1996					
Missile	Range(km)	Payload(Kg)	Quantity		

			•
No Dong	1000	1000	0
Scud B/C	300/500	1000/700	210
CSS-8	150	190	200

Sources: Office of the Secretary of Defense, Proliferation: Threat and Response, April 1996, p. 16; International Institute for Strategic Studies (IISS), Military Balance 1996/97 (London: Oxford University Press, 1996), p. 132; IISS, Military Balance 1995/96 (London: Oxford University Press, 1995), p. 281.

Naval Armaments

The strategic importance of Iranian naval armaments grows from the economic geography of the Persian Gulf. Through the waters of the Persian Gulf transit nearly 12 million barrels of petroleum per day, one-sixth of the world's production. Seven states (from largest exporter)-- Saudi Arabia, Iran, UAE, Kuwait, Qatar, Iraq, and Bahrain--export oil using tankers that must pass through the Strait of Hormuz to reach international markets. Even Saudi Arabia, despite a pipeline that can carry 5 million barrels per day to the port of Yanbu on the Red Sea, transports two-thirds of its 7.5 million barrels per day in oil exports by ship from the Gulf. As a result, safe passage through the waters of the Persian Gulf is vital to the international economy.

By its geographic position, Iran dominates the Gulf. It has the longest coastline in the Gulf, which stretches its entire length from the border with Iraq to the Strait of Hormuz. As a result, Iran casts a looming shadow over everything that happens in the Gulf. In particular, it dominates the routes that tankers must travel to leave the Gulf. Besides its control over half of the Strait of Hormuz, Iranian controlled islands inside the Gulf sit astride the key tanker routes. Thus, Iran is well positioned to challenge the movement of tankers.

The importance Iran assigns to its naval frontier is evident in the efforts made to rectify the deficiencies of its naval forces. Prior to 1995, Iran had no ship-mounted antiship missiles. The acquisition in 1995 of five missile-equipped Chinese-built *Hudong* class patrol boats ended a significant gap in Iranian naval forces. Five additional *Hudongs* were delivered in March 1996. Based on the design of the old Soviet Osa II missile boat, each *Hudong* carry four Chinese C-802 antiship cruise missile.

Table 2: Iranian Antiship Cruise Missiles, 1996

Missile	Range (km)	Payload(Kg)	Quantity
C-802	120	165	40+
HY-2	95-100	513	?

Sources: Christopher F. Foss, editor, Jane's Armour and Artillery 1996-97, 17th edition (Alexandria, Va.: Jane's Information Group,1995), pp. 791-793.

The significance of the *Hudong* delivery comes from the accompanying supply of C-802 antiship missiles. The C-802 is a relatively new, turbo-jet powered missile first unveiled in 1989. Until 1996, Iran relied almost exclusively on the older HY-2 (Silkworm) missile, a Chinese derivative of the old Soviet Styx antiship missile. The C-802 should be harder to defend against than the HY-2.

At least two of Iran's ten French-built *Kaman* missile boats also have been equipped with the new missile. As a result, Iran today has at least 12 guided missile patrol boats, compared with none at the beginning of 1995. It seems likely that the rest of the Kaman force will be similarly equipped, giving Iran a total of 20 missile patrol boats, compared with none in 1995.

Iran also has taken additional steps to enhance its mine warfare capabilities. During the late 1980s, Iran relied exclusively on vintage design moored mines acquired from North Korea but based on Soviet designs. More recently, it has been reported in open sources that Iran has a wider variety of mines, in greater quantities, and that it now manufactures at least some types of mines. Iran is reported to possess 2,000 mines. These include bottom mines using influence fuses, which should be highly effective in the shallow waters of the Gulf. They will be harder to clear than the older moored mines.

Iran has lacked a mine that could be used effectively in the deeper waters of the Strait of Hormuz. However, China appears to be providing an advanced naval mine, the EM-52 rising mine, that will significantly enhance Iranian mining capabilities. The EM-52 is a rocket-propelled mine that can be deployed in waters too deep for other types of mines.

The three Kilo-class submarines from Russia have received considerable attention, perhaps more than deserved. These submarines, apparently armed with Russian wake-homing torpedoes, add significantly to the combat potential of the Iranian Navy. What is less clear is the operational effectiveness of the submarines. Few military instruments are as difficult to use well as are submarines. While they will pose a significant threat when the Iranians learn to employ them effectively, it remains to be determined how long this will take. While the submarines have experienced some technical problems, it appears that they are being resolved.

The effectiveness of the submarines will depend heavily on the types of targets that they choose to engage. It will probably be some time before they can engage modern naval forces with effective antisubmarine warfare (ASW) capabilities. It will take far less time for them to acquire the proficiency needed to attack merchant ships, especially if not escorted by ASW-capable naval forces. Hence, the submarines will pose a strategic problem long before they are able to engage other naval forces.

Implications for the United States

The United States currently has sufficient military forces in the region to counter virtually any move

taken by the Iranians. Substantial U.S. Naval capabilities in the Gulf include a carrier battle group, and, when it is not present, the U.S. Air Force has started to deploy expeditionary forces to fill the gap.

Significantly, the U.S. Navy has permanently deployed two mine countermeasures ships to the Gulf, reducing the most serious military weakness. Moreover, the level of cooperation between the United States and its partners in the Gulf Cooperation Council (GCC) remains high. There is considerable support in the GCC for the U.S. military presence, and widespread belief that the United States is a vital deterrent against Iranian and Iraqi adventurism. So long as these relations remain strong and Saddam Hussein remains a threat, the United States will have access to the facilities required to effectively operate its forces in the Gulf.

Neither of these conditions should be taken for granted. The United States maintains its military forces in the Gulf only with great difficulty. The distances involved are quite substantial. Most of the ships deployed to the Gulf must make the long trip from bases on the coasts of the United States. This imposes a substantial burden on the shrinking Navy force structure. Should the U.S. military take significant budget cuts in the future, it will be difficult to sustain the current commitment to the security of the Gulf.

Nor can it be assumed that the GCC countries will always support the U.S. These countries have their own concerns and interests, and the United States has sometimes not taken sufficient effort to work with the GCC. Many of the United States' closest friends believe that the United States can be unnecessarily provocative in its relations with Iran. Moreover, they worry that the United States often adopts new policies without taking into account the interests and concerns of the GCC, thus potentially putting them risk. Even those most hostile towards Iran worry that they might suffer in the event of a confrontation between the United States and Iran. If the United States is to sustain the political cooperation needed to ensure support for the continued presence of its military forces, Washington needs to do a better job of consulting with the GCC countries.

Finally, the American people appear to view Iran as a hostile country and support the U.S. military role in countering Iranian aggression. This political support is vital, because if fighting were to develop between the United States and Iran, the United States should expect to take losses. In all likelihood, ships will be damaged and aircraft will be shot down. Should the United States need to employ ground forces, it will almost certainly suffer additional casualties. Moreover, the Iranians might achieve some victories. Iranian missiles and terrorists could inflict damage on facilities used by the United States in the GCC countries. In addition, Iran could use its growing arsenal of chemical and biological weapons to counter highly capable U.S. military forces. Such threats also pose a danger to the GCC countries. The Iranians also could inflict damage to the vital oil infrastructure of the GCC states, which could affect world oil prices. Even a limited action against Iran, such as retaliation for terrorism, could entail significant costs: engaging Iran militarily is not like the post-DESERT STORM strikes against Iraq which have not seen any response.

Dr. W. Seth Carus is a visiting fellow at the NDU Center for Counterproliferation Research. He was previously at the Center for Naval Analyses, the Office of the Undersecretary of Defense for Policy, and The Washington Institute for Near East Policy. He presented an earlier version of this analysis at a June 1996 INSS workshop. For more information, contact Dr. Carus at 202-685-2242 or via e-mail at caruss@ndu.edu.

The Strategic Forum provides summaries of work by members and guests of the Institute for National Strategic Studies and the National Defense University faculty. These include reports of original research,

synopses of seminars and conferences, the results of unclassified war games, and digests of remarks by distinguished speakers.

Editor in Chief - Hans Binnendijk

Editor - Jonathan W. Pierce NOTE

| Return to Top | Return to Strategic Forum Index | Return to Research and Publications |

<u>Return to NDU Homepage</u> <u>INSS Homepage</u>

INTERNET DOCUMENT INFORMATION FORM

- A . Report Title: Iran as a Military Threat
- B. DATE Report Downloaded From the Internet: 09/26/01
- C. Report's Point of Contact: (Name, Organization, Address, Office Symbol, & Ph #):

 National Defense University Press
 Institute for National Strategic Studies
 Washington, DC 20001
- D. Currently Applicable Classification Level: Unclassified
- E. Distribution Statement A: Approved for Public Release
- F. The foregoing information was compiled and provided by: DTIC-OCA, Initials: __VM__ Preparation Date 09/26/01

The foregoing information should exactly correspond to the Title, Report Number, and the Date on the accompanying report document. If there are mismatches, or other questions, contact the above OCA Representative for resolution.